

Title (en)
CUTTING INSERT, CUTTING TOOL, AND METHOD FOR MANUFACTURING CUT PRODUCT USING CUTTING TOOL

Title (de)
SCHNEIDEEINSATZ, SCHNEIDWERKZEUG SOWIE HERSTELLUNGSVERFAHREN FÜR EIN SCHNEIDEPRODUKT MIT DEM SCHNEIDWERKZEUG

Title (fr)
PLAQUETTE DE COUPE, OUTIL DE COUPE ET PROCÉDÉ DE FABRICATION D'UN PRODUIT COUPÉ À L'AIDE DE L'OUTIL DE COUPE

Publication
EP 2774706 A4 20150805 (EN)

Application
EP 12845789 A 20120830

Priority

- JP 2011239491 A 20111031
- JP 2012072037 W 20120830

Abstract (en)
[origin: EP2774706A1] In a cutting insert according to an embodiment of the present invention, an upper surface sequentially includes a first rake surface and a second rake surface. The first rake surface being inclined toward the lower surface as going inward from the cutting edge at a first rake angle on a basis of a perpendicular plane perpendicular to a central axis extending between the upper surface and a lower surface. The second rake surface is located more inward than the first rake surface and is inclined toward the lower surface at a second rake angle different from the first rake angle on the basis of the perpendicular plane. An intersecting part of the first rake surface and the second rake surface includes a protruded part located at a highest position in a region of the intersecting part along the second side surface. A cutting tool with the cutting insert, and a method of producing a machined product by using the cutting tool are also provided.

IPC 8 full level
B23C 5/20 (2006.01); **B23B 27/14** (2006.01); **B23B 27/16** (2006.01); **B23B 51/00** (2006.01); **B23C 5/06** (2006.01); **B23C 5/10** (2006.01)

CPC (source: CN EP US)
B23C 5/06 (2013.01 - US); **B23C 5/109** (2013.01 - CN EP US); **B23C 5/202** (2013.01 - CN EP US); **B23C 2200/0494** (2013.01 - CN EP US); **B23C 2200/085** (2013.01 - CN EP US); **B23C 2200/125** (2013.01 - CN EP US); **B23C 2200/284** (2022.02 - EP); **B23C 2210/045** (2013.01 - CN EP US); **B23C 2210/0457** (2013.01 - CN EP US); **Y10T 83/04** (2015.04 - EP US); **Y10T 407/22** (2015.01 - EP US); **Y10T 407/23** (2015.01 - EP US)

Citation (search report)

- [E] EP 2727672 A1 20140507 - KYOCERA CORP [JP]
- [E] EP 2703108 A1 20140305 - KYOCERA CORP [JP]
- [X] WO 2011052340 A1 20110505 - KYOCERA CORP [JP], et al
- [X] WO 2008132757 A1 20081106 - TAEGU TEC INDIA P LTD [IN], et al
- See references of WO 2013065393A1

Cited by
WO2016045946A1; EP3785834A1; EP3950188A4; US11717898B2; EP3000548A1; EP3072616A1; CN107405699A; EP3808482A1; US10350686B2; WO2016150672A1; WO2021073885A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2774706 A1 20140910; EP 2774706 A4 20150805; EP 2774706 B1 20201104; CN 103889624 A 20140625; CN 103889624 B 20170704; CN 107297531 A 20171027; CN 107297531 B 20191122; JP 2016005864 A 20160114; JP 2017080889 A 20170518; JP 5824526 B2 20151125; JP 6095241 B2 20170315; JP 6353941 B2 20180704; JP WO2013065393 A1 20150402; US 10486247 B2 20191126; US 2014298967 A1 20141009; US 2016121411 A1 20160505; US 2017252838 A1 20170907; US 2018193928 A1 20180712; US 9272342 B2 20160301; US 9604292 B2 20170328; US 9889511 B2 20180213; WO 2013065393 A1 20130510

DOCDB simple family (application)
EP 12845789 A 20120830; CN 201280052992 A 20120830; CN 201710558902 A 20120830; JP 2012072037 W 20120830; JP 2013541663 A 20120830; JP 2015200722 A 20151009; JP 2017026659 A 20170216; US 201214354775 A 20120830; US 201614993501 A 20160112; US 201715443111 A 20170227; US 201815860326 A 20180102